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Zied AOUIDENE

Software & DevOps Engineer

Google Cloud Professional Cloud Architect

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Professional Summary

- **Google Cloud Certified Professional Cloud Architect** and Cloud Engineer with 4+ years designing, automating and operating production-grade **GCP** environments (plus AWS & Azure), from landing-zone design through day-2 operations.
- **Kubernetes** practitioner on **GKE** and AKS: Deployments, Services, Ingress, ConfigMaps & Secrets, with GitOps delivery through **Argo CD** and Helm, and self-managed clusters provisioned using **Kubespray**.
- **Cloud networking & IAM** practitioner: VPC and subnet design, firewall rules, VPC peering, internal/external Cloud Load Balancing, Cloud DNS, Cloud NAT and IAP, applying strict **least-privilege IAM** (custom roles, scoped service accounts).
- **Automation first**: infrastructure as code with **Terraform** and Ansible, and CI/CD pipelines built on GitLab CI/CD, GitHub Actions and Cloud Build to standardize provisioning and application delivery across projects.
- **Trusted technical advisor** to enterprise customers and partners (Qatar Customs / GBM Qatar engagement), owning HLD/LLD design, monolith-to-container migration strategy, and technical scope, timelines and deliverables with stakeholders.

Experience

Astrolab-Group

Sep. 2024 – Present

DevOps Engineer

Sousse, Tunisia

- Acted as **trusted technical advisor** on a consulting engagement for GBM Qatar, designing and provisioning UiPath (RPA) infrastructure on **Google Cloud Platform** together with Qatar Customs and UiPath teams: VPCs, subnets, firewall rules, VPC peering, internal load balancer, Cloud NAT, IAP, private Cloud DNS, Cloud Routes and Cloud SQL, supporting the client through installation, validation and go-live.
- Deployed and operated containerized workloads on **Kubernetes (GKE)** using **Deployments**, **Services**, **Ingress** with TLS, and **ConfigMaps and Secrets** for application configuration and credential management.
- Implemented **GitOps** continuous delivery with **Argo CD** and Helm (automated sync, self-healing and drift detection), making rollouts across dev, staging and production declarative, auditable and easy to roll back.
- Provisioned a low-cost, highly available 3-node Kubernetes cluster across VMs using **Kubespray** (Ansible-based), as an alternative to a managed control plane.
- Implemented **least-privilege IAM** on GCP: purpose-scoped service accounts, custom roles, and project- and folder-level policy bindings replacing broad primitive roles, with separation of duties across environments.
- Implemented reusable GitLab CI/CD Components (spec:inputs) to standardize deployment pipelines, centralize CI/CD logic, and automate infrastructure provisioning (**Terraform**) and application deployments (Ansible), reducing maintenance effort and accelerating delivery across projects.
- Defined and executed strategies to migrate legacy monolithic and VM-based applications to container-based architectures on Kubernetes, covering service decomposition, ingress routing, secret management and automated deployment.
- Engineered a secure, public-facing ingress architecture for internal DevOps and administration tools utilizing Cloudflare Tunnels (cloudflared), entirely eliminating the need for open inbound firewall ports or public static IPs.
- Built and optimized CI/CD pipelines using GitLab CI, GitLab Runners, GitHub Actions, and Google Cloud Build to build, scan, containerize and deploy applications to GKE and VMs.
- Designed system architectures, technical specifications, and diagrams (HLD/LLD) from design to delivery, managing technical scope, timelines and deliverables with stakeholders.
- Designed and deployed full Amazon Web Services (AWS) architectures including VPCs, public/private subnets, EC2, IAM, SNS, S3, CloudWatch, Amazon Textract, and MongoDB on AWS.
- Developed Ansible playbooks for automated deployments (CD), configuration management, and pipeline optimization, including secure storage and management of production .env files and credentials using Ansible Vault.
- Dockerized backend and frontend applications; configured and optimized Nginx reverse proxy with SSL/TLS, and optimized Dockerfiles using multi-stage builds to significantly reduce image size and build time.
- Performed cloud cost estimation, pricing analysis, and infrastructure optimization (FinOps), achieving cost reduction and improved resource utilization.

- Migrated legacy systems and platforms (CMS, Plesk, MySQL, WordPress) with minimal downtime.

Yobi
Apr. 2024 – Present

DevOps Engineer (Freelance, Part-Time) — *Remote, United States*

- Managed cloud services with SRE practices, deploying, scaling, and monitoring applications across **AWS** and **GCP**, ensuring high availability and SLA compliance.
- Containerized, built, released, and deployed multiple applications using **Docker** and **Ansible**
- Developed CI/CD pipelines for various applications using **Gitlab-CI** and **Google Cloud Build**.
- Deployed and maintained multiple internal tools, including N8N, Outline, Mattermost, Plane, NocoDB, Grist, Draw.io, Redash, Nextcloud, Odoo.
- Implemented backup and recovery strategies for internal tools, including automated lifecycle policies to delete backups older than seven days.
- Built CI/CD pipelines that reduced the test, integration, and deployment process from +1 hour to 17 minutes, improving release velocity and incident response time.
- Configured and deployed AWS **CloudFront** distribution, implemented SSL/TLS with a custom domain, set up pipeline for automated deployments, and optimized caching with automatic invalidation.
- Implemented Zero Trust Network Access (ZTNA) policies at the edge, leveraging **Cloudflare** Access to enforce contextual authentication, multi-factor authorization, and secure posture checks before granting access to internal environments.
- Worked closely with development and QA teams to streamline software releases and ensure rapid issue resolution.
- Reduced the monthly cost of cloud services through observability-driven optimization and resource right-sizing.
- Authored and maintained comprehensive runbooks and documentation in the internal Outline wiki to enhance knowledge sharing, onboarding, and incident management.

Mobelite
Mar. 2024 – Jul. 2024

DevOps Engineer (end of studies internship) — *Tunis, Tunisia*

- Containerized apps with multi-stage builds, and built CI/CD pipelines via GitHub Actions.
- Deployed containerized applications to **Kubernetes (AKS)** using Deployments, Services, Ingress controllers and Secrets, with **Argo CD** driving GitOps-based automated sync, rollback and drift detection.
- Managed monitoring and observability solutions using Prometheus and Grafana to track traffic, visualize performance, and define SLOs.
- Created TLS certificates for domain names to secure communication.
- Provisioned and configured an Azure SQL Database for MySQL, integrating it with a Node.js backend by setting up the necessary configuration for seamless database connectivity.

Horizon School of Digital Technologies
Jan. 2024 – Jun. 2024

Teaching Assistant — *Sousse, Tunisia*

- Guided students in ReactJS, HTML, CSS and JavaScript, supporting lab sessions and mentoring them through technical challenges.
- Developed strong communication, presentation and leadership skills while guiding students through their learning journey.

Proxym-Group
Nov. 2022 – Dec. 2023

Frontend Developer — *Sousse, Tunisia*

- Developed responsive, high-performance web applications using ReactJS, translating UI/UX designs into reusable, accessible and maintainable components.
- Implemented state management with Redux and Redux-Saga and integrated RESTful APIs with Axios to deliver dynamic content.
- Optimized application performance through code splitting, lazy loading and memoization, ensuring cross-browser compatibility and responsiveness.
- Integrated Keycloak for front-end authentication with customized corporate themes, collaborating with backend teams in an Agile, Git-based workflow.

Satoripop
Feb. 2022 – Jun. 2022

Full-stack Developer (end of studies internship) — *Sousse, Tunisia*

- Designed and implemented a full-featured admin panel for managing vouchers using ReactAdmin, enabling seamless CRUD operations and tracking of coupon usage.
- Built RESTful APIs using LoopBack4 and MongoDB to support robust backend functionality for voucher management, including CRUD operations and user authentication with JWT tokens.
- Developed a React Native mobile app to enable end-users to redeem and track vouchers, integrating the backend RESTful APIs and JWT-based authentication for a seamless, secure experience.

Education

Horizon University of Digital Technologies — **Sep. 2022 – Jul. 2024**
Master in Software Engineering & DevOps — *Sousse, Tunisia*

Higher Institute of Technological Studies (isetSo) — **Sep. 2019 – Jun. 2022**
Bachelor of Information Technology — *Sousse, Tunisia*

Personal & Freelance Projects

From Diagram as Code to Infrastructure as Code (DaC 2 IaC) - MCP Server

- Architected and developed a custom Model Context Protocol (MCP) server that converts natural language infrastructure requirements into validated cloud architectures and generates editable Draw.io diagrams, with an interactive approval step for infrastructure-as-code (Terraform) generation.
- Engineered an automated parsing and validation engine that transforms technical text descriptions into multi-layered, fully editable Cloud Architecture Diagrams in Draw.io format, incorporating best-practice checks prior to output generation.
- Streamlined the DevOps documentation lifecycle by bridging generative AI, architecture validation, diagram automation, and Terraform IaC generation into a unified workflow for consistent, production-ready infrastructure design.

Hybrid Edge-Routing Mail Infrastructure

- Designed and implemented a zero-cost, high-reliability custom mail routing matrix for (zi3d.tn) leveraging Cloudflare Email Routing at the edge for inbound traffic.
- Integrated a dedicated Brevo SMTP relay for outbound delivery, securing bi-directional custom-domain communication directly within a standard consumer Gmail interface.
- Hardened domain security and sender reputation by configuring cryptographic DKIM keys, DMARC compliance, and unified SPF records to achieve a 100% email deliverability rate.

Dynamic Multi-Tenant SaaS Platform

- Designed and developed a multi-tenant SaaS platform using FastAPI, React, Vite, and PostgreSQL, supporting organization management, role-based access control (RBAC), and row-level security (RLS).
- Built a centralized identity and authentication system with ZITADEL, implementing SSO, invitation-based onboarding, automated user provisioning, and lifecycle synchronization across the platform.
- Implemented modern DevOps practices with Docker, Docker Compose, GitLab CI, and automated database migrations, following a modular, API-first architecture.
- Developed reusable UI components, internationalization (i18n), and scalable frontend architecture with TypeScript, React Query, Zod, and shadcn/ui.

AI-Powered Fashion & Textile Management Platform

- Designed and developed a cloud-native SaaS platform for fashion workshops and textile manufacturers using **FastAPI**, **React**, **Vite**, and **PostgreSQL**, supporting secure multi-user authentication, role-based access control, and tenant-ready architecture.
- Built REST APIs and modern frontend interfaces for customer, inventory, production, and order management while integrating AI-powered workflows for garment design assistance, technical sheet generation, and production automation.
- Deployed the application on **AWS EC2** with Docker, configured domain names, DNS, HTTPS/TLS, and production email delivery using **Resend** for transactional notifications such as account verification, password reset, and business communications.
- Implemented automated CI/CD pipelines for rapid deployments, infrastructure automation, environment management, and zero-downtime application updates, enabling faster feature delivery and simplified maintenance.

Technical Skills

Infrastructure, Automation & DevOps

Kubernetes: GKE, AKS, Kubespray, Deployments, Services, Ingress, ConfigMaps & Secrets, Helm, kubectl
CI/CD & GitOps: Git, GitLab CI/CD, GitHub Actions, Cloud Build, Argo CD
IaC & Automation: Terraform, Ansible (playbooks, roles, Vault), Bash
Containerization: Docker, Podman, multi-stage builds, Artifact/Container Registry
Ops & Security: Linux, Nginx, Prometheus, Grafana, Cloudflare (Tunnels, Access/ZTNA), Certbot

Google Cloud Platform (GCP)

Certified: Google Professional Cloud Architect (PCA)
Compute: GKE, Compute Engine, Cloud Run, App Engine, Instance Groups
Networking: VPC, Subnets, Firewall Rules, VPC Peering, Cloud Load Balancing (internal & external), Cloud DNS, Cloud NAT, Cloud CDN, Cloud Armor, IAP, Cloud Routes, Private Service Connect
Security & IAM: Least-privilege IAM, Custom Roles, Service Accounts, Org Policies, Secret Manager, KMS
Storage & DB: Cloud Storage, Cloud SQL, AlloyDB, BigQuery, Spanner, Memorystore
Tools & AI: Cloud Build, Artifact Registry, Cloud Logging & Monitoring, Pub/Sub, Vertex AI, Marketplace, Calculator, Model Armor

Amazon Web Services (AWS)

Compute: EC2, EKS, ECS, Fargate, ASG
Storage: S3, S3 Glacier, EBS, FSx
Database: RDS, DocumentDB, ElastiCache, Athena
Networking & Content Delivery: VPC, ELB, CloudFront, Route53
Management & Governance: IAM, KMS, ACM, SNS, CloudWatch, Textract, CodeCommit, Wickr, Marketplace, Calculator

Microsoft Azure

Core Services: EntraID, VNets, VMs, AKS, ACR, SQL DB, Marketplace, Calculator

Software Engineering

Backend & Scripting: Python, FastAPI, Bash, Java, PHP, Symfony, LoopBack4, Firebase, Postman
Frontend: ReactJS, React Native, Redux (Saga/RTK), HTML/CSS, JavaScript, TypeScript, Dart, Flutter
Database: SQL, PostgreSQL, MySQL, MongoDB

Productivity & Methodology

Tools: Jira, ClickUp, Cursor, Google Antigravity, Microsoft 365, Google Workspace, GoogleAppsScript
Creative: Adobe Photoshop, Adobe Illustrator, Teamwork, Agile

Certifications

Google Professional Cloud Architect (PCA) **ECo-C Communication Certified** **TOEIC Certified**

Languages

Arabic Native
English Advanced | TOEIC
French Intermediate
German Beginner